

### **REMARK/ARGUMENTS**

#### **Remarks regarding the Amendments:**

Claim 1 was amended to include the limitations of claims 2 and 9 as originally presented. In addition, the reference previously found in claim 2 to “copolymer blend” and to “polyamide” has been eliminated. Claim 2 was canceled. Claim 3 was amended to eliminate the word “copolymer” as a modifier to “blend” and to depend from claim 1. Claims 8 and 9 were amended to recite a narrower position with regard to amount of flame retardant in view of the inclusion of flame retardant amount in claim 1. Support for this amount is found at page 3, line 13. Claim 9 was amended to depend from claim 1 rather than claim 5. Claim 11 was amended to recite a maximum amount of flame retardant. Support for this amendment is found at page 3, line 12. Claims 17 and 18 recite a narrower position with regard to the amount of flame retardant than is recited in claim 11. Support for these new claims is found at page 3, lines 12 and 13. New claims 19 and 20 recite the specific level of ignition resistance for the claimed articles by referencing passing of the UL-94 flammability test. Support for these claims is found at page 2, lines 12-13.

Response to the Rejections:

*1. Rejection of Claims 2-16 under 35 U.S.C. § 112, second paragraph*

Claims 2 and 3 were considered indefinite due to the use of the phrase “copolymer blend”. That phrase is no longer used in the amended claims.

Claim 11 was considered indefinite due to lack of antecedent basis for the phrase “plastic substrate”. The word plastic has been deleted and substrate finds antecedent basis in claim 11 part (a). In view of the amendments, Applicants request that the rejection under section 112 be withdrawn.

*2. Rejection of claims 1-3 and 5-6 under 35 U.S.C. § 102(b) over Asai.*

The rejected claims, as amended, recite the ignition resistant composite of a polymer substrate selected from those listed mixed with a low amount of flame retardant and having a polymerized organosilicon coating on the substrate. By use of the organosilicon coating Applicants discovered that they could make articles that passed UL-94 test (flame retardancy related test) while using a significantly lower amount of flame retardant than is normally required to pass the test. Asai teaches a polymeric article that has improved antistatic properties by use of a coating formed by plasma polymerizing organosilicon monomers. Asai incidentally mentions that conventional additives such as lubricants, fillers, plasticizers, stabilizers, pigments, dyes, etc. and flame retardants may be included. Nothing in Asai indicates the amount of flame retardant that should be used and thus a skilled worker would have used a conventional amount. In fact, it is surprising in view of the generic teachings of Asai that such low flame retardant levels can be used while still passing the UL-94 test. Nothing in Asai, therefore, anticipates or renders obvious the presently presented claims that require that the flame retardants should be used in the relatively low amounts.

*3. Rejection of Claim 7 under 35 U.S.C. § 103(a) over Asai*

Claim 7 depends indirectly from claim 1. Thus, claim 7 is patentable for, inter alia, the reasons stated above in the discussion of claim 1.

*4. Rejection of claims 4 and 8-16 under 35 U.S.C. § 103(a) over Asai in view of Jeong*

Claims 4, 8 and 10-18 recite that the flame retardant used is a phosphate flame retardant. Asai was discussed thoroughly above. In addition to the failings of the teachings of Asai discussed above with regard to claim 1, Asai does not discuss the type of flame retardant to be used. The rejection notes that Jeong teaches phosphate flame retardants in amounts of 0.5-3 parts by weight. While this teaching is present, the rejection ignores the context of the teaching. First, Jeong is addressed only to polyamides. Polyamides are not included in the pending claims of this application. Second, Jeong teaches that the low amounts of phosphate flame retardants are being used not for their flame retardant properties but rather for their adhesion improving properties. Nothing in Jeong and its teaching of improving adhesion in polyamides either alone or in combination with the teachings of Asai to use organosilicon coatings to improve antistatic properties would have led a skilled worker to use low amounts of fire retardant in a non-polyamide polymeric article with a polymerized organosilicon coating to attain an article that would pass UL-94.

It is further important to note that Jeong advocates further inclusion of flame retardants in column 4, lines 8-11 further bolstering the idea that a skilled worker would have expected to have to use the conventional amount of flame retardant in order to pass flame retardancy tests.

In view of the above amendments and discussion, Applicants request reconsideration and allowance of the pending claims.

Respectfully submitted,



Susan Moeller Zerull  
Registration No. 38,367  
Phone: (989) 636-8858

P. O. Box 1967  
Midland, MI 48641-1967

SMZ/jmd